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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,486	03/18/2005	Herbert Lifka	NL020885US	5058

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EXAMINER	
ROY, SIKHA	
ART UNIT	PAPER NUMBER
2879	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,486	LIFKA ET AL.	
	Examiner	Art Unit	
	Sikha Roy	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2009*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 22-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,14,15,22,23 and 25-28* is/are rejected.

7)☒ Claim(s) *12,13 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The Amendment, filed on March 10, 2008 has been entered and acknowledged by the Examiner.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claims 1-15 and 22-28 are pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9-11 and 22, 23, 25 -27 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,140,765 to Kim et al.

Regarding claim 1 Kim discloses (Figs. 7, 8, 9,10,11col. 6 lines 6-51, col. 7 lines 1-33, lines 40-45, 64-67, col. 8 lines 1,2) an electrical device comprising a substrate 3 carrying at least one electrode (second electrode 17 of EL element in fig. 14c), a first connecting line 10b (Fig. 8a, second bus electrode connecting to contact pad 6) electrically connected to the electrode, the first connecting line bridging a second connecting line 7a (Fig. 7-1a first bus electrode connecting to the contact pad 5) by a crossover, wherein at least a portion of perimeter of the crossover is bounded by an electrically insulating structure 13, insulating the crossover from at least one other

crossover (at the crossing of another second electrode bus line and first electrode bus line for another sub-panel).

Regarding claim 2 Kim discloses the electrically insulating structure extends in a direction substantially perpendicular to the substrate 3 and at least comprises one overhanging portion, rampart 14 (and rampart 15) projecting in a direction substantially parallel to the surface of the substrate.

Regarding claim 3 Kim discloses (Figs. 10,11) the crossover is surrounded by electrically insulating structure.

Regarding claim 4 Kim discloses (Figs.8, 7) the electrical device comprises a plurality of additional first connecting lines 10b, the additional first connecting lines having crossovers with second connecting lines 7a, 7b each crossover being bounded by a corresponding electrically insulating structure.

Regarding claim 5 Kim discloses the electrical device is an electroluminescent display device and the component is a display pixel.

Regarding claim 6 Kim discloses (Fig. 14c) the display pixel comprising a first electrode 4, an electroluminescent material 16 and a second electrode 17, the second electrode being connected to the first connecting line (second bus electrode).

Regarding claim 9 Kim discloses (figs. 7,8,14) the method for manufacturing the electrical device of electroluminescent display comprising a crossover of at least one connecting line over a second connecting line the first connecting line connecting to the electrical device comprising forming first and second connecting lines 10b, 7b on the

substrate, depositing an insulating layer 13 on the first and second connecting line in an area where the crossover is to be formed, creating an opening in the insulating layer in a position where an electrical contact is to be provided between the first connecting line and a connection point, forming an electrically insulating structure, ramparts 14, 15 peripherally surrounding at least a portion of the area where crossover is to be formed and depositing an electrically conductive layer (second electrode layer 17) on the insulating layer to connect the first connecting line to connecting point, which connecting point may be connected to second connecting line.

Claims 10 and 11 essentially recite the same limitations as of claims 2 and 3 and hence are rejected for the same reasons.

Regarding claim 22 Kim discloses the crossover is completely surrounded by the electrically insulating structure 13.

Regarding claim 23 Applicant claims the intended use of the electrical device and does not differentiate the claimed device from prior art electrical device structurally. Thus the Examiner asserts that the electrical device of Kim is capable of being used as a test structure for testing display panel.

Regarding claim 25 Kim discloses the first and second connecting lines are formed successively.

Regarding claim 26 Kim discloses an electrical device including an electroluminescent display comprising a plurality of electrodes on a substrate, the plurality of electrodes corresponding to a plurality of components, a plurality of first

connecting lines 10b electrically connected to the plurality of electrodes 17, a plurality of second connecting lines 7b, each of the plurality of first connecting lines being electrically connected to one of the plurality of second connecting lines and an insulating layer 13 covering at least a portion of each of the plurality of first connecting lines and the plurality of second connecting lines, wherein at least one first connecting line of the plurality of first connecting lines connects with one second line of the plurality of second connecting lines through an opening in the insulating layer 13 by bridging at least one other second connecting line of the plurality of second connecting lines at a crossover, the crossover being insulated from the at least one other second connecting line by the insulating layer and from at least one other first connecting line by the insulating structure 14, 15 surrounding the crossover and the opening.

Regarding claim 27 Kim discloses the plurality of components comprise plurality of pixels.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,670,994 to Kawaguchi et al. and further in view of USPN 6,507,384 to Endo et al.

Regarding claim 1 Kawaguchi discloses (Figs. 1,2,3, 4b col. 18 lines 25-63) an electrical device comprising a substrate 2 carrying at least one component liquid crystal panel 20 comprising at least one electrode, a first connecting line 3 connected to the electrode, the first connecting line bridging a second connecting line 73 (bus lines) by a crossover, wherein at least a portion of the perimeter of the crossover is bounded by wiring board 4, separating the crossover from at least one other crossover.

Kawaguchi does not exemplify the structure of wiring board forming the perimeter of crossovers being insulating.

Endo in same field of endeavor discloses (col. 3 lines 37-40) wiring formed on an insulating wiring board. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Thus, it would have been obvious to one having ordinary skills in the art at the time the invention was made to have wiring board of Kawaguchi made of insulating material a taught by Endo , since the selection of known materials for a known purpose is within the skill of the art.

Regarding claim 3 Kawaguchi as modified by Endo discloses the crossover is surrounded by electrically insualting structure.

Regarding claim 4 Kawaguchi as modified by Endo discloses the electrical device comprises a plurality of additional first connecting lines 3, the additional first

connecting lines having crossovers with second connecting lines 73 each crossover being bounded by a corresponding electrically insulating structure 4.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,140,765 to Kim et al.

Regarding claim 8 Kim discloses the substrate being transparent but does not exemplify the substrate comprising glass. It is well known in the art to use glass as transparent substrate for the EL display panels. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use substrate of Kim comprising glass since the selection of known material for a known purpose is considered to be within the skill of the art.

Claims 7, 14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,140,765 to Kim et al., and further in view of USPN 6,940,214 to Komiya et al.

Regarding claim 7 Kim does not disclose the device being an integrated circuit.

Komiya in same field of endeavor discloses (claim 1) an electroluminescent display device having driving circuit region integrated on the substrate, the driving circuit region having thin film transistors for driving the device.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the electrical device of Kim include integrated circuit of thin film transistors as disclosed by Komiya for driving the device.

Regarding claim 14 Kim as modified by Komiya discloses the electrical device is an integrated circuit wherein the first connecting line is connected to the integrated circuit for driving the pixels in the device.

Regarding claim 15 Kim and Komiya disclose the integrated circuit is made on a glass substrate.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,140,765 to Kim et al., and further in view of USPN 6,798,145 to Ishizuka.

Regarding claim 28 Kim is silent about the plurality of second connecting lines providing corresponding plurality of color signals for sub-pixels connected to the plurality of first connecting lines.

Ishizuka in same field if endeavor discloses (Figs. 1,2) plurality of second connecting lines providing plurality of color signals R,G ad B to the electroluminescent sub-pixels and thus providing an appropriate image display with multicolor design.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the electrical device of Kim with second connecting lines providing color signals for sub-pixels connected to plurality of first connecting lines as suggested by Ishizuka for providing an appropriate image display with multicolor design.

Allowable Subject Matter

Claims 12,13 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 12 the prior art of record does not teach or suggest the method of forming the electrical device by forming first electrode simultaneously with the first and second connecting lines along with the combination of limitations as claimed.

Claim 13 would be allowable because of its dependency status from claim 12.

Regarding claim 24 the prior art of record does not teach or suggest the method of forming the electrical device by forming the first and second connecting lines simultaneously along with the combination of limitations as claimed.

Response to Arguments

Applicant's arguments with respect to claims1,9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment submitted 10/27/08 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikha Roy/
Primary Examiner, Art Unit 2879